What is Claimed is:

5

15

1. An adaptor serving for both a mobile phone unit and a private IP telephone unit, which is connectable to the mobile phone unit through a low power wireless system or a wired cable and connected to an IP-PBX (Internet Protocol - Private Branch eXchange) through an IP (Internet Protocol) network, the adaptor comprising:

a telephone unit controller for managing resource data of the mobile phone unit; and

a VoIP (Voice over IP) extension section for providing the mobile phone unit with a function of the private IP telephone unit in cooperation with the IP-PBX,

wherein when a call is made with the mobile phone unit, a telephone number of the called mobile phone unit which is input from the calling mobile phone unit is converted into a telephone number of a called private IP telephone unit and the call is made to the telephone number of the called private IP telephone unit.

2. An adaptor serving for both a mobile phone unit and a private IP telephone unit, which is connectable to the mobile phone unit through a low power wireless system or a wired cable and connected to an IP-PBX through an IP network, the adaptor comprising:

a telephone unit controller for managing resource data of the mobile phone unit; and

a VoIP extension section for providing the mobile phone unit with a function of the private IP telephone unit

in cooperation with the IP-PBX,

5

20

wherein when a call is received to a telephone number of the private IP telephone unit, it is determined whether or not the mobile phone unit is connected to the adaptor and when connected, a telephone call is performed with the mobile phone unit.

The adaptor as set forth in claim 2,

wherein when the call is received to the telephone number of the private IP telephone unit, if the mobile phone unit is not connected to the adaptor, it is determined whether or not a telephone number to be forwarded has been designated, and when it has been designated, the call is forwarded to the designated telephone number.

15 4. The adaptor as set forth in claim 3,

wherein when the call is received to the telephone number of the private IP telephone unit, if the mobile phone unit is not connected to the adaptor and a telephone number to be forwarded has not been designated, the call is forwarded to the telephone number of the mobile phone unit and a telephone call is performed with the mobile phone unit.

- 5. The adaptor as set forth in claim 1, further comprising:
- 25 means for linking a telephone directory of the mobile phone unit and a telephone directory of the IP-PBX.
 - 6. The adaptor as set forth in claim 2, further

comprising:

5

means for linking a telephone directory of the mobile phone unit and a telephone directory of the IP-PBX.

- 7. The adaptor as set forth in claim 1, further comprising:
 - a QoS (Quality of Service) controller for performing control for minimizing loss of audio data due to communication congestion over the IP network.
- 8. The adaptor as set forth in claim 2, further
 10 comprising:
 - a QoS (Quality of Service) controller for performing control for minimizing loss of audio data due to communication congestion over the IP network.
- The adaptor as set forth in claim 1, further
 comprising:
 - a charging circuit for charging a battery of the mobile phone unit.
 - 10. The adaptor as set forth in claim 2, further comprising:
- a charging circuit for charging a battery of the mobile phone unit.